

# इंटरनेट

# मानक

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IS 7595-5 (1991): Fishing vessels - Otter boards, Part 5: Vee type otter boards [TED 18: Inland, Harbour Crafts and Fishing Vessels]



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भारतीय मानक

मछली पकड़ने का जलयान — उदर पट

भाग 5 वी किस्म के उदर पट

*Indian Standard*

**FISHING VESSELS — OTTER BOARDS**

**PART 5 VEE TYPE OTTER BOARDS**

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## FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Fishing Vessels Sectional Committee had been approved by the Transport Engineering Division Council.

VEE type otter boards are extensively used for their good performance on very hard and irregular grounds. It is relatively inexpensive to manufacture and has a long working life. The spreading qualities of the VEE type boards are, however, slightly inferior to other types of boards.

The interchangeability of towing bracket is an important factor in favour of VEE boards, because boards can be fitted either way around to make either a port or starboard side otter board.

This standard is one of the series of Indian Standards on otter boards. Other standards in the series are:

<b>IS 7595</b>	<b>General requirements for otter boards:</b>
( Part 1 ) : 1975	Flat rectangular otter boards
( Part 2 ) : 1976	Rectangular horizontally curved otter boards
( Part 3 ) : 1977	Oval otter boards
( Part 4 ) : 1986	Application standard
( Part 6 ) : 1991	Guidelines for selection

# Indian Standard

## FISHING VESSELS — OTTER BOARDS

### PART 5 VEE TYPE OTTER BOARDS

#### 1 SCOPE

This standard ( Part 5 ) specifies materials and general requirements of VEE type otter boards.

#### 2 REFERENCES

The following Indian Standards are necessary adjuncts to this standard:

<i>IS No.</i>	<i>Title</i>
226 : 1975	Structural steel ( standard quality ) ( <i>fifth revision</i> )
513 : 1986	Cold-rolled low carbon steel sheets and strips ( <i>third revision</i> )
816 : 1969	Code of practice for use of metal arc welding for general construction in mild steel ( <i>first revision</i> )
1084 : 1983	Manila ropes ( <i>third revision</i> )
1161 : 1979	Steel tubes for structural purpose ( <i>third revision</i> )
1323 : 1982	Code of practice for oxy-acetylene welding for structural work in mild steels ( <i>second revision</i> )
1404 : 1970	Anti-corrosive paint, brushing for ships bottom and hulls, red or chocolate ( <i>second revision</i> )
2266 : 1977	Steel wire ropes for general engineering purposes ( <i>second revision</i> )
5537 : 1970	Lashing chains
5986 : 1970	Hot rolled steel plate and flats for cold forming and flanging operation for automobile and general purposes
7283 : 1974	Hot-rolled bars for production of bright bars
7595 ( Part 1 ) : 1975	General requirements for otter boards : Part 1 Flat rectangular otter boards

#### 3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 7595 ( Part 1 ) : 1975 shall apply.

#### 4 MATERIALS

<i>Name of Part</i>	<i>Material Conforming to</i>
Keel	IS 226
Top frame	IS 1161
Body	IS 513 IS 226
Bracket	IS 5537
Backstrop	IS 2266
G link	IS 7283
Kellys' eye	IS 7283
Figure of 8 link	IS 7283
Fittings	IS 5986
Chain bridle	IS 5537
Towing rope	IS 1084 IS 2266
Tie rods	IS 1161

#### 5 CONSTRUCTION

**5.1** The VEE type otter board is built to a simple structure made entirely of mild steel thick wall tube, solid round bar and plate. The typical design of a VEE type otter board is shown in Fig. 1 and is constructed as follows.

**5.1.1** The keel section of the main frame is made of solid steel bar bent into the required shape.

**5.1.2** Thick walled steel tube is bent to shape and the ends butt-welded to the ends of the keel to complete the main frame.

**5.1.3** The main frame is then bent in accordance with the geometry shown in end elevation in Fig. 1 and then covered with a mild steel sheet of light gauge and welded.

**5.1.4** The towing bracket is then attached taking care of interchangeability to allow the board to be fitted on either side.

**5.1.5** Two back tie rods, made out of thick walled tube similar to that used for the top frame shall be welded onto the back plate as shown in Fig. 1.

**5.2** For protection against corrosion all metal parts shall be painted with a paint conforming to IS 1404 : 1970.

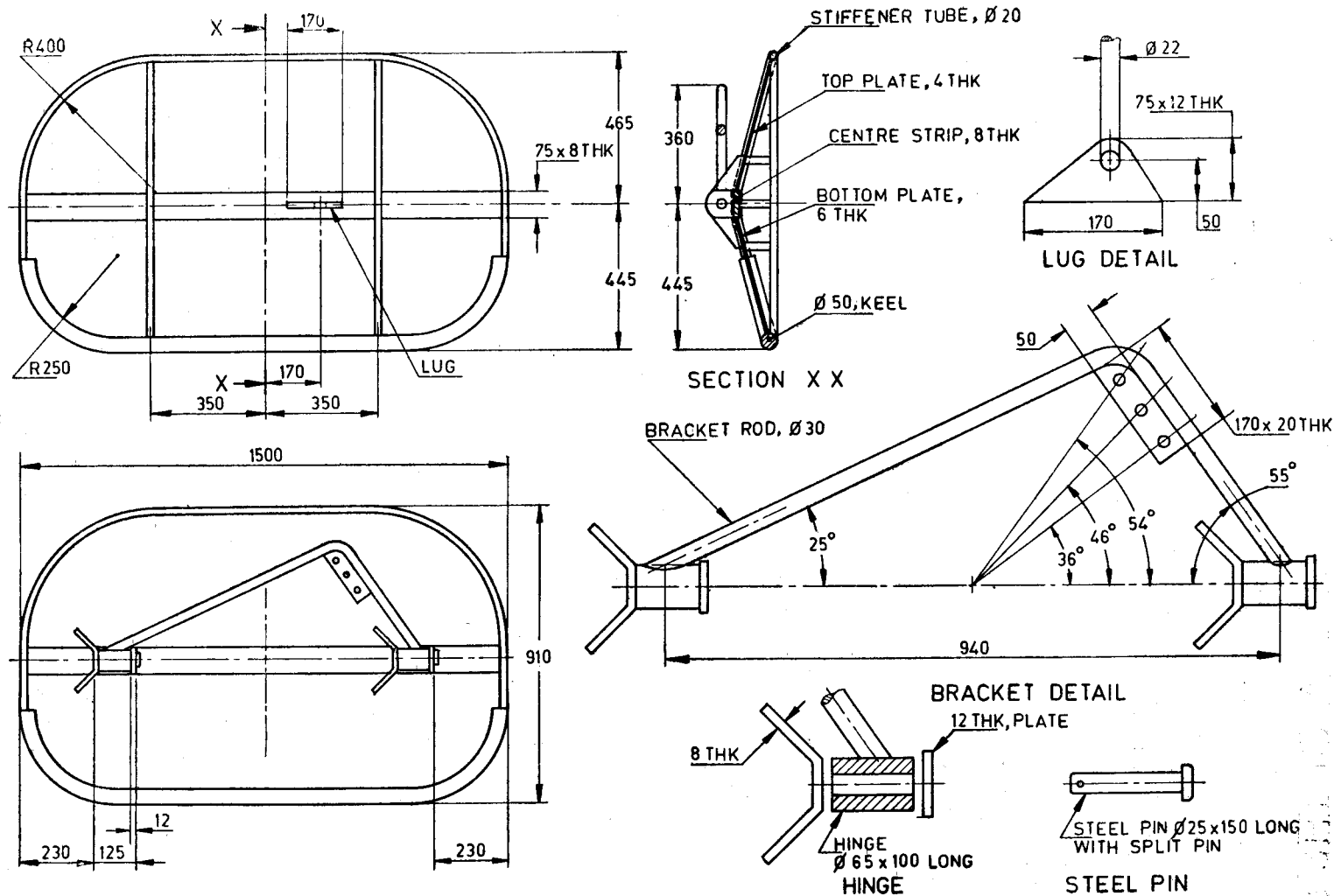


FIG. 1 CONSTRUCTION DETAILS OF A TYPICAL RECTANGULAR VEE TYPE OTTER BOARD OF ABOUT 1.3 m<sup>2</sup> AREA

5.3 The welding shall be carried out in accordance with IS 816 : 1969 or IS 1323 : 1982, as applicable to the process adopted.

## **6 DIMENSIONS**

6.1 The dimensions of VEE type otter board of about 1.3 m<sup>2</sup> are shown in Fig. 1.

6.2 The length and width of the otter board shall preferably be in a ratio of 2 : 1 to 2 : 1.2. Higher ratios may also be adopted.

### **6.3 Rings**

The fittings for rings on the outer side of the board for connecting the backstop shall be

approximately at 20 percent of the length of the board from the rear edge of the board.

### **6.4 Backstop**

The length of the backstop and bridle shall be as agreed to between the manufacturer and the purchaser.

### **6.5 Shear Angle**

Shear angle for VEE type otter boards ranging between 30° and 40° is considered most suitable.



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